

State of Maine Office of the State Coordinator for Health Information Technology Program Evaluation Plan

Prepared for:

Office of the National Coordinator for Health Information Technology

Center for Medicare and Medicaid Services

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1. Introduction

This document describes the program evaluation to be conducted of Maine's Office of the State Coordinator for HIT, and the State's Health Information Exchange (operated by HealthInfoNet, a non-profit corporation). The evaluation will have two complementary components: 1) An HIE-specific evaluation based on mandatory areas as identified by the ONC; and 2) A broader-based evaluation of the State's OSC program based on over-arching goals and objectives of the joint federal and State Health Information Technology efforts. (Note: This document was drafted using a template required by the Office of the National Coordinator for HIT, under the federal HITECH Act.)

Background

In April 2011, the State of Maine was awarded \$3,423,129 by the Office of the National Coordinator for Health Information Technology (ONC)'s State Health Information Exchange Cooperative Agreement Program.¹ The purpose of this award is to develop, implement and facilitate health information technology (HIT) and health information exchange (HIE) in the state of Maine. The Maine program is housed in the Office of the State Coordinator for HIT in the Office of MaineCare Services under the Maine Department of Health and Human Services, which is the sponsor of this program. The program's efforts to advance HIE are carried out in the context of a Statewide HIT Plan approved by the ONC and State policies and laws. The primary purpose of the program is to support the federal/state partnership HITECH vision:

A Nation in which the health and well-being of individuals and communities are improved by health information technology.

Maine's Office of the State Coordinator for HIT, housed in the Department of health and Human Services leads the State's HIT/HIE efforts and MaineCare's Meaningful Use Program for health care providers. Maine's statewide HIT strategy encompasses the following ideal:

Preserving and improving the health of Maine people requires a transformed patient centered health system that uses highly secure, integrated electronic health information systems to advance access, safety, quality, and cost efficiency in the care of individual patients and populations.

Maine's Department of Health and Human Services has adopted a vision and mission:

Vision: Maine people living safe, healthy, and productive lives

Mission: Provide integrated health and human services to the people of Maine to assist individuals in meeting their needs, while respecting the rights and preferences of the individual and family, within available resources.

¹ The April 2011 grant award replaced an earlier grant award that established the Health Information Exchange Program in Maine.

Maine's Medicaid Meaningful Use Program, under the Office of the State Coordinator for HIT has a vision that reflects the national and State HIT goals:

A Medicaid program that employs secure electronic health information technology to provide truly integrated, efficient, and high quality health care to Members and to improve health outcomes.

The federal and State visions resulted in the adoption by the OSC Steering Committee (HITSC) of long-term goals and strategic objectives. Services performed by the OSC programs facilitate the secure exchange of health information between Maine health care organizations, providers, public health agencies and consumers according to nationally-recognized standards. Because the Medicaid Meaningful Use program is under the umbrella of the Office of the State Coordinator, it is important to assess both the HIT program and the Meaningful Use program in the context of this evaluation, as they chart the path forward for the future and an updated State Health Plan. An excerpt of goals and strategic objectives is included below.

Goal 1. Electronic Health Records, Exchange and Security Standards

By 2015, all people in Maine will be cared for by healthcare providers who share electronic health and health related information securely within a connected healthcare system using standards-based technologies that promote high quality individual and population health.

Strategic objectives:

- 1) By 2015, all providers in Maine will have an E H R, and share clinical and administrative information. The State will institute system improvements and enhance frameworks and governance of HIT programs including provider participation, exchange, and reporting of clinical, claims, and Meaningful Use data.
- 2) By 2016, all MaineCare Members will be managed by DHHS and providers who have secure access to and use of electronic protected health information, while adhering to strict privacy, security, and confidentiality requirements.

Goal 2. Policy and Promotion of Evidence Based, Clinically Effective and Efficient Care

Electronic healthcare information will be used by the OSC to develop appropriate public and private policies throughout the healthcare system to promote evidenced based, clinically effective, and efficient care for all people.

Strategic Objectives

- 1) By 2016, all health care programs and data (including population health reporting to CDC) will be intrinsically linked through State alignment at every level possible to assure that the programs and data collected are used to improve population health.
- 2) All HIT and exchange activities will be developed and overseen by the OSC through structures that promote cooperation and collaboration among all public and private stakeholders and which build upon existing partnerships developed throughout the history of HIE in Maine, and with the recognition of the public interests in regulatory, accountability and fiscal functions.

Goal 3. Communication, Education and Outreach Benefits.

By 2015, all people and providers in Maine will be informed about the benefits of HIT, and have access to a flexible comprehensive consumer centric life-long health record – “One Person One Record.”

Strategic Objectives

- 1) By 2016, MaineCare will develop and implement comprehensive communication and training programs for State decision makers, staff, providers, citizens of Maine and stakeholders; all providers will achieve MU guidelines; and for people who participate in HIE, ensure all providers have comprehensive access to patient’s health care information for informed decision making.
- 2) **By 2015, the statewide hie will implement statewide health information exchange services, connecting all providers, payers, laboratories, imaging centers, pharmacies, public agencies and other relevant stakeholders to allow for the appropriate, secure, and private exchange of phi for coordination of care among all primary care and specialty providers.**
- 3) Recognizing that HIT and HIE are tools, evaluation metrics will be iteratively developed and promulgated across the healthcare system of Maine to assure that HIT tools are used appropriately and to the benefit the people of Maine.

Key program milestones for the Office of the State Coordinator for Health Information Technology and the State’s Meaningful Use Program are identified in the table below:

| Milestone | Date |
|---|-------------------------------------|
| Contracted services for a statewide HIE | February 2010 |
| Created a Health Information Technology steering committee of providers, consumers, advocacy groups, private entities, government leaders, public agencies and other stakeholders | February 2010 |
| Established framework for Medicaid Adopt, Implement, and Upgrade program and Meaningful Use program (Approval of Maine’s SMHP) | June 2010 |
| Implemented the Medicaid Meaningful Use program | June 2011 |
| Conducted annual updates to program strategic plan | May 2011, May 2012 |
| Approved Meaningful Use Implementation Plan Update (IAPD-U) | April 2013 (through September 2015) |
| Submitted program evaluation plan for approval | June 2013 |

2. Program Description

The Office of the State Coordinator for Health Information Technology, which has program oversight of the State's Medicaid Meaningful Use program, serves as the foundation for Maine's HIT initiatives. This section provides the evaluation framework describing context, processes and outcomes:

| Context | |
|--|---|
| Priorities <i>(ONC required and state specific)</i> | Inputs <i>(primary or key)</i> |
| <ul style="list-style-type: none"> • Laboratories participating in delivering electronic structured laboratory results • Pharmacies participating in electronic prescribing • Providers sharing electronic patient care summaries • Usage of HIE Implementation Metrics • Governance • Technical Infrastructure • Business and Technical Options • Legal / Policy • Finance & Grant Management • Leveraging Funding • Meaningful Use Stage 2 and Stage 3 requirements (when known) • Integration with Payment Reform and Emerging health care initiatives and ONC/CMS priorities and policies • Sustainable Program | <ul style="list-style-type: none"> • <i>Stakeholder Input (Maine Regional Extension Center, Legislature, HIT Steering Committee, State HIE, OMS Meaningful Use Program, HITSC)</i> • <i>Strategic and operational plans</i> • <i>Legislative and executive support</i> • <i>Federal grant funding</i> • <i>ONC guidance</i> • <i>CMS guidance</i> • <i>Nationally known Quality Programs and Metrics</i> • <i>Maine DHHS and State Leadership</i> |
| Process and Outcomes | |
| Strategies <i>(key approaches of program)</i> | Outcomes <i>(short- and long-term results)</i> |
| <ul style="list-style-type: none"> • <i>Active stakeholder engagement</i> • <i>HIE and OSC planning and implementation</i> • <i>Supporting Laboratories / pharmacies / providers</i> • <i>Assure privacy and security of information</i> | <ul style="list-style-type: none"> • <i>Adoption-related outcomes (priority areas at minimum)</i> • <i>Cost, quality and health outcomes (e.g., triple aim)</i> • <i>Sustainability and Governance</i> |

3. Evaluation Stakeholders

Evaluation stakeholders are individuals or organizations that have a vested interest in the evaluation. Although often referred to as "stakeholders," subgroups of these individuals may actually have very different types of interests in the evaluation performed. The primary stakeholders for this evaluation include:

- Leadership and management of the Office of the State Coordinator for Health Information Technology and the State's Meaningful Use Program
- Maine Legislators and Executives
- Office of the National Coordinator leadership and management
- Individual Consumers and Consumer Groups
- Membership of HITSC (State Agencies, Private and Public Stakeholders, and HealthInfoNet)
- Maine DHHS (leaders of initiatives such as value-based purchasing, SIM, rural health, telemedicine (TCL technology) and health homes)
- Maine CDC

- Maine Health Data Org
- Medicaid Agency
- Broadband Agency
- Maine's IT Office
- Maine's Mental Health Agency
- Maine's Long Term Care Agency
- Maine's CHIPRA Program
- Maine's HIE
- SIM Project and Health Homes Initiative

The evaluation team will work directly with these stakeholders to finalize the evaluation plan by including them in discussions about what information will be most useful to them in taking actions to advance HIE and improve the Office of the State Coordinator for Health Information Technology and the State's Meaningful Use Program, reviewing proposed data collection and analysis methodologies, and developing an approach for the dissemination of findings and recommendations.

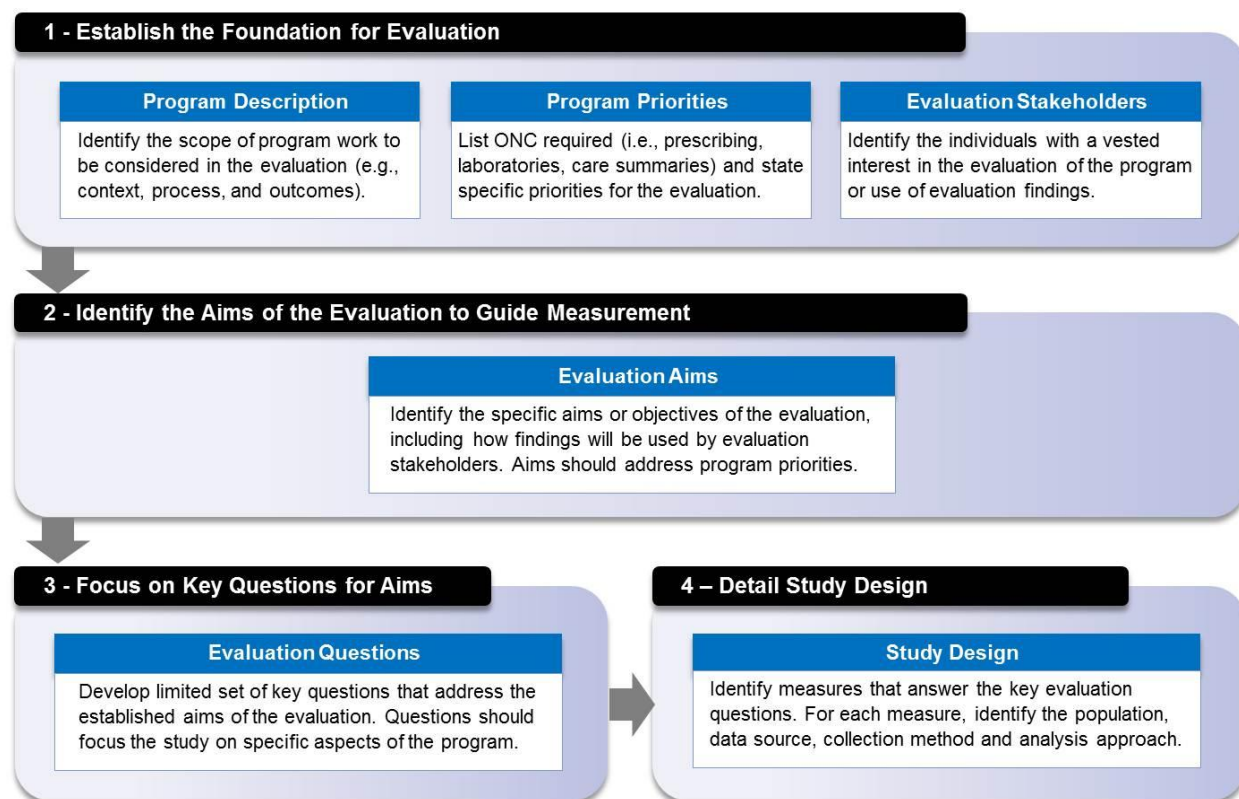
4. Aims of the Evaluation

For this activity, evaluation is defined as the collection of information about the context, processes and outcomes of the program to assess the program, improve program effectiveness, and inform programmatic decisions within Maine and by ONC. The primary aims of the evaluation are the following:

- Determining how successful has the State been in meeting its goals and objectives.
- Identify approaches and strategies used to facilitate and expand HIE in priority areas
- Describe conditions influencing implementation of program strategies
- Assess how HIE performance has progressed in key program priority areas
- Assess how key approaches and strategies contributed to progress
- Identify and document lessons learned and gap analysis of actual performance measured against the goals and objectives and update goals and objectives given new initiatives and emerging needs for health care data and HIT.
- Develop a plan for sustainability with ongoing milestones.

5. Overall Approach

To establish a systematic approach for the evaluation plan, we provide a clear explanation of what our evaluation is intended to measure, how evaluation questions align to evaluation aims, and whether evaluation questions provide the information required by key stakeholders. The following figure illustrates these steps and presents an overview of our evaluation approach.



6. Evaluation Questions

Evaluation questions help to define the boundaries for an evaluation study by specifically delineating the aspects of the program on which the evaluation will focus. The evaluation will use a mixed methods approach to assessing evaluation aims. Evaluation plan questions address both process and outcome components of the program description. The following table identifies evaluation questions for each evaluation aim identified in Section 4. Additional information on data collection and analysis follows.

This evaluation consists of several components: 1) Evaluation of the HIE (to include the Cooperative Agreement executed between the State of Maine and HealthInfoNet that operates the State-wide HIE); 2) Evaluation of the State's OSC and State HIT Plan; and 3) Lessons learned and a road-map for sustaining and integrating HIT in to the framework of policies, practices, and Initiatives.

| Focus | Evaluation Question |
|---|--|
| Overarching Evaluation Topic: How successful the State was in meeting its goals and objectives and a plan for how the the State can continue to focus on achieving initial and updated goals and objectives. | |
| Strategies: Conduct the evaluation using two complementary components: Evaluation of the HIE and Evaluation of the overall OSC program | |
| AIM 1: Identify approaches and strategies that were used to facilitate and expand HIE in priority areas | |
| Strategies | What approaches and strategies were used to sign up exchange users and how successful were these approaches? |
| AIM 2: Describe conditions influencing implementation of program strategies | |

| Focus | Evaluation Question |
|---|--|
| Governance | To what extent did the governance model for HIE promote or hinder program strategies? What improvements can be made to the governance of the HIE to promote the exchange of clinical data for treatment, payment, and health care operations and a “level playing field”? How are the importance of public purposes and public interest as reflected by the OSC and State HIT Plans, incorporated and reflected in the HIE governance model? What improvements in the OSC and State HIT Plan models best meet the needs of the State for the future? |
| Survey | To what extent did communications and outreach practices influence key stakeholder engagement? (distinguish between the provider community and the consuming public) How can the State HIT Plan and OSC program better promote coordination of communications and stakeholder engagement among various consumer, advocacy, HIE, and other health care related groups and organizations? |
| Resources | What are stakeholder perceptions of the adequacy of resources to support HIE implementation, the OSC program, and HIT efforts? What resources are available that have not been leveraged or could be leveraged in a more productive manner? How successful has the State OSC and HIE been in building a framework that readily lends itself to identifying opportunities for grants and other types of funding? |
| AIM 3: Assess how HIE performance has progressed in key program priority areas | |
| Adoption | How has HIE performance progressed toward adoption in each of the key program priority areas? |
| Sustainability | To what extent has progress been demonstrated in the implementation of the sustainability plan? |
| Utilization | What are the barriers to utilization? Is there a significant difference between HIE adoption and HIE usage? Is HIE participation hampered by lack of technology? The costs of participating in the HIE? How do all consumers who want to have their health care data in the HIE, ensure their health care data is in the HIE, especially those in the rural areas? Are there policies or frameworks that prevent treatment providers, payers, and operations from obtaining clinical data, especially PHI? |
| AIM 4: Assess how key approaches and strategies contributed to progress and identify lessons learned | |
| Elements of success | In what ways did program strategies contribute to successful progress in program priorities? |
| Lessons learned | What lessons has the program learned that are relevant to future efforts to advance the exchange of health information? How can those lessons be applied to the HIE, and the OSC and State HIT Plan going forward? |
| AIM 5: Assess path to sustainability: OSC and the HIE | |

| Focus | Evaluation Question |
|----------------------------------|--|
| Sustainability and Future Course | <p>How can the results of the evaluation help shape the future of the HIE organization, structure, and increased use of the exchange and data?</p> <p>What new initiatives and strategies have emerged since the time the OSC HIT Plan was first developed, that need to be considered and included in sustainability and the future course of HIT efforts in the State, including the HIE and the OSC?</p> <p>How will the State, through the OSC and other forums, ensure that the benefits that HIT brings to improved health care and outcomes becomes an integral component of these new initiatives and strategies? How is HIT best integrated with those initiatives to ensure efficiency, and Triple Aim goals are met?</p> <p>What policy and practices recommendations for the future emerge from the evaluation?</p> <p>What options and recommendations could be State take to continue and improve upon, the HIT efforts?</p> |

7. Study Design

To address the established aims of the evaluation and related evaluation questions, multiple data collection and analysis methods will be used. The following table details the primary approach to data collection and analysis. Descriptions of methods for collection and analysis follow.

| Evaluation Question | Study Population | Data Source | Data Collection | Data Analysis | |
|--|---|---|--|--|---|
| What approaches and strategies were used to sign up exchange users? | <ul style="list-style-type: none"> • Maine HIE Program | <ul style="list-style-type: none"> • Program documentation | <ul style="list-style-type: none"> • Document Review | <ul style="list-style-type: none"> • Data extraction | <ul style="list-style-type: none"> • AIM 1 |
| To what extent did the governance model for HIE promote or hinder program strategies? | <ul style="list-style-type: none"> • Evaluation stakeholders • Key HIE stakeholders | <ul style="list-style-type: none"> • Sample of stakeholder groups | <ul style="list-style-type: none"> • Interviews • Focus groups | <ul style="list-style-type: none"> • Content analysis | <ul style="list-style-type: none"> • AIM 2 |
| To what extent did communications and outreach practices influence key stakeholder engagement? (distinguish between the provider community and the consuming public) | <ul style="list-style-type: none"> • Evaluation stakeholders • Key HIE stakeholders | <ul style="list-style-type: none"> • Sample of stakeholder groups | <ul style="list-style-type: none"> • Interviews • Focus groups | <ul style="list-style-type: none"> • Content analysis | <ul style="list-style-type: none"> • AIM 2 |
| What are stakeholder perceptions of the adequacy of resources to support HIE implementation? | <ul style="list-style-type: none"> • Evaluation stakeholders • Key HIE stakeholders | <ul style="list-style-type: none"> • Sample of stakeholder groups | <ul style="list-style-type: none"> • Questionnaire | <ul style="list-style-type: none"> • Statistical analysis • Content analysis | <ul style="list-style-type: none"> • AIM 2 |
| How has HIE performance progressed toward adoption in each of the key program priority areas? | <ul style="list-style-type: none"> • Laboratories | <ul style="list-style-type: none"> • Progress reports • Audit log | <ul style="list-style-type: none"> • Secondary data | <ul style="list-style-type: none"> • Trend analysis • Statistical | <ul style="list-style-type: none"> • AIM 3 |

| Evaluation Question | Study Population | Data Source | Data Collection | Data Analysis | |
|--|---|---|---|--|---|
| | <ul style="list-style-type: none"> Pharmacies | <ul style="list-style-type: none"> Progress reports Vendor data | <ul style="list-style-type: none"> Secondary data | analysis | |
| | <ul style="list-style-type: none"> Providers | <ul style="list-style-type: none"> Progress reports Sample of providers | <ul style="list-style-type: none"> Secondary data Questionnaire | | |
| To what extent has progress been demonstrated in the implementation of the sustainability plan? | <ul style="list-style-type: none"> Maine HIE Program | <ul style="list-style-type: none"> Program documentation | <ul style="list-style-type: none"> Document Review | <ul style="list-style-type: none"> Content analysis | <ul style="list-style-type: none"> AIM 3 |
| Is there a significant difference between HIE adoption and HIE usage? | <ul style="list-style-type: none"> Evaluation stakeholders Key HIE stakeholders | <ul style="list-style-type: none"> Sample of stakeholder groups | <ul style="list-style-type: none"> Interviews Focus groups | <ul style="list-style-type: none"> Content analysis | <ul style="list-style-type: none"> AIM 3 |
| In what ways did program strategies contribute to successful progress in program priorities? | <ul style="list-style-type: none"> Evaluation stakeholders Key HIE stakeholders | <ul style="list-style-type: none"> Sample of stakeholder groups | <ul style="list-style-type: none"> Interviews Focus groups | <ul style="list-style-type: none"> Content analysis | <ul style="list-style-type: none"> AIM 4 |
| What lessons, if any, did the program learn that are relevant to future efforts to advance the exchange of health information and HIE? | <ul style="list-style-type: none"> Evaluation stakeholders Key HIE stakeholders | <ul style="list-style-type: none"> Sample of stakeholder groups | <ul style="list-style-type: none"> Interviews Focus groups | <ul style="list-style-type: none"> Content analysis | <ul style="list-style-type: none"> AIM 4 |
| How will those lessons be incorporated into the program strategies, going forward? | <ul style="list-style-type: none"> Evaluation stakeholders Key HIE stakeholders | <ul style="list-style-type: none"> Sample of stakeholder groups | <ul style="list-style-type: none"> Interviews Focus groups | <ul style="list-style-type: none"> Content analysis | <ul style="list-style-type: none"> AIM 4 |
| How does accumulated knowledge from the evaluation process chart a course for program future? (Identify and recommend process and organizational improvements for the OSC) | <ul style="list-style-type: none"> Evaluation stakeholders Key HIE stakeholders | <ul style="list-style-type: none"> Sample of stakeholder groups | <ul style="list-style-type: none"> Interviews Focus groups Questionnaire | <ul style="list-style-type: none"> Content analysis | <ul style="list-style-type: none"> AIM 5 |
| As the Maine framework moves to more fully integrate its OSC and Meaningful Use programs, what actions should be taken to increase efficiency, integrate HIT into new emerging initiatives such as value-based purchasing, SIM, health homes)? | <ul style="list-style-type: none"> Evaluation stakeholders Key HIE stakeholders | <ul style="list-style-type: none"> Progress reports Sample of providers | <ul style="list-style-type: none"> Secondary data Questionnaire Interviews Focus groups | <ul style="list-style-type: none"> Content analysis | <ul style="list-style-type: none"> AIM 5 |

To select methods, we considered overall appropriateness to the program context (e.g., priorities) and feasibility given program constraints (e.g., resources). Each data collection method is outlined in the table below. Other data collection methods may be utilized as appropriate.

Data Collection Methods

| Collection Method | Description |
|-------------------|--|
| Document Review | The review of existing written documents, reports and other artifacts (e.g., progress reports) to collect data and information for analysis and interpretation. |
| Secondary Data | The analysis of existing data that was either gathered by another organization or individual or for some other purpose than the evaluation—or both (e.g., Surescripts e-prescribing data). |
| Interviews | The asking of questions orally to individuals, often in a format with standardized questions and open-ended responses. Closed-ended questions should have specific answers specified. |
| Focus Groups | A group interview of approximately six to twelve people who share similar characteristics or common interests. A facilitator guides the group based on a predetermined set of topics. |
| Questionnaires | A questionnaire is a set of questions for gathering information from individuals. Commonly administered as a survey, they may also be administered by mail, telephone, or as handouts. |

Data Analysis Methods

| Collection Method | Description |
|----------------------|---|
| Data Extraction | The process of reviewing a data source to retrieve data and information of interest. |
| Content Analysis | A method for studying the content of a data source (e.g., document, transcript, survey response) to categorize information, often leading to conclusions about common themes, issues, processes or ideas expressed. |
| Trend Analysis | A method for analyzing the change over time of measures that are collected repeatedly. Trend analysis compares repeated measurements to increase awareness of change. |
| Statistical Analysis | A set of methods to analyze, present, and interpret data. Statistical analyses provide an approach to describe data and to make interpretations about the meaning of the data. |

8. Dissemination of Findings and Recommendations

The evaluation team will determine stakeholders' preferred communication method and their specific needs regarding the format of findings and recommendations resulting from the evaluation. We anticipate developing the following products for the presentation of evaluation findings and recommendations:

- The final evaluation report audience will be the State of Maine Office of the State Coordinator, HITSC, state leaders and federal partners (ONC & CMS)
- A PowerPoint slide set of data and findings linked to sound recommendations for action
- Presentation of findings and recommendations at face-to-face stakeholder meetings
- Presentation of findings and recommendations through public webinar or press release

9. Timeline

The timeline below is based on achieving the evaluation before February 7th, 2014. The completion of evaluation activities depends on the progress of program activities, availability of data and timeliness of feedback from ONC on evaluation activities outlined within this plan.

| Evaluation Activity | Completion Date |
|--|------------------------|
| Approval of Evaluation plan by ONC | July 12, 2013 |
| RFP (Competitive Process) | August 20, 2013 |
| Execute Contract (Including Final Work Plan) | August 30, 2013 |
| Data Gathering (Including Stakeholders Meetings and Input) | October 15, 2013 |
| Data Analysis and Draft Findings | November 15, 2013 |
| Draft Report | December 15, 2013 |
| Comment Period | January 10, 2014 |
| Final Report with Recommendations for Updated State HIT Plan | January 15, 2014 |
| Final Presentation of Report to Sponsors | February 3, 2014 |